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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,198

03/24/2006

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EXAMINER

PHAN, THIEM D

ART UNIT

PAPER NUMBER

3729

MAIL DATE

DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,198	Applicant(s) TANAKA ET AL.	
	Examiner THIEM PHAN	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-18 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/8/06 3/24/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicants' election without traverse of Species IIA, filed on 04/28/08 is acknowledged.

The Restriction mailed on 3/31/08 has been carefully reviewed, is held to be proper and is hereby **made Final**.

Applicants are required to cancel the nonelected claims (12 and 19-21) or take other appropriate action.

An Office Action on the merits of Claims 13-18 and 22 now follows.

Specification

2. On page 1, before "Technical Field", insert:

"Cross Reference to Related Document:

This application is the U.S. National Phase under 35 U.S.C. 371 of International Application PCT/JP04/10043, filed July 14, 2004."

Title

3. The following title is suggested: "Method of Manufacturing a Stator in a Rotating Electric Machine".

Abstract

4. Applicants are reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims,

Art Unit: 3729

such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Currently, the Abstract has 162 words counted.

The abstract of the disclosure is further objected to because the elected, claimed invention is about the Method Claims. Therefore, an amended abstract to which the elected invention pertains is necessary to clarify the claimed invention. See MPEP § 608.01(b).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 13-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denki (JP60-18648) in view of Kobayashi et al (US 4,400,639).

Regarding claim 13, Denki teaches a process of insulating a stator slot in a rotating electric machine, comprising:

- preparing a stator core having plural slots (Fig. 2, 7) in an inner peripheral surface, each slot of the plural slots has a slot peripheral wall and slot opening that opens in the inner

peripheral surface, the slot peripheral wall of each slot has a slot bottom wall and a pair of slot side walls opposing to each other and continuing to the slot bottom wall;

- forming an electrical insulation material (Fig. 8, 8) on the slot peripheral wall of each slot to form an insulation coating, except for spraying a powder of an electrical insulation material or painting a layer of insulation material;
- cutting into the insulation coating on the pair of slot side walls at vicinity of the slot opening to form a pair of holding grooves (Fig. 8, 12) opposing each other;
- disposing a stator winding having plural winding member such that each winding member (Fig. 2, 2) of the stator winding is inserted inside each slot; and
- inserting an electrical insulation member (Fig. 8, 6) between the holding grooves for closing the slot opening, wherein the insulation coating is formed over continuously from the slot bottom wall to the pair of slot side walls and groove walls of the holding grooves are formed in the slot side walls.

Kobayashi et al teach a process of manufacturing a rotor by painting a layer of insulating material on the inner peripheral surface of the slot (Col. 2, lines 30-32), in order to avoid any dielectric breakdown (Col. 2, lines 35-38).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Denki, by applying the painted insulation, as taught by Kobayashi et al, in order to tightly fit the molding shape of the slot.

Regarding claim 14, Denki teaches that the holding grooves are formed so that a depth of each of the holding grooves (Fig. 8, 12) is smaller than a thickness of the insulation coating (8).

Regarding claim 15, Denki teaches that the holding grooves are formed so that each holding groove (Fig. 8, 12) has a groove bottom wall and a pair of groove side walls opposing to each other, and the groove bottom wall and the pair of groove side walls are formed in the insulation coating.

Regarding claim 16, Denki teaches that the pair of groove side walls is formed so that a clearance is formed between one of groove (Fig. 8, 12) side walls and the electrical insulation member (6).

Regarding claim 17, Denki teaches that each groove bottom wall is formed so that a clearance is formed between the groove (Fig. 8, 12) bottom wall and the electrical insulation member (6).

Regarding claim 18, Denki teaches that each pair of groove side walls of the holding grooves (Fig. 8, 12) are formed so that the inner one of the pair of groove side walls positioned on an inner side of each slot is formed to tilt in a depth direction of each slot, due to its insulated flexibility.

Regarding claim 22, Denki teaches that the depth of each of the holding grooves (Fig. 8, 12) is defined in the direction of the thickness of the insulation coating.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M & Tu, 6AM - 2PM, and W & Th, 9AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phan Thiem/

Tim Phan
Examiner
Art Unit 3729
May 24, 2008